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"More broadly, we must restrain the use of pesticides for NNICTICUT the sake of our own future. The world is now too small for rapidly increasing human populations to release rapidly increasing amounts of persistent poisons into environment. Man needs to begin a quiet revolution in his thinking, which recognizes the crowding of our world and seeks to govern man's own effects on environment with foresight, long-range wisdom, and restraint. In an age when we can reach for the moon, such a revolution seems possible. There is no doubt that it

"A-bombs, Bugbombs and Us", 1966

DEDICATION OF THE LUCIUS POND ORDWAY PRESERVE - or "DEVIL"S DEN"

Devil's Den, the largest single acquisition of the Connecticut Chapter of The Nature Conservancy, was recognized by a program of dedication which followed immediately the Annual Meeting at Weston on October 22nd. A gift of Miss Katherine Ordway and dedicated in memory of her father, Lucius Pond Ordway, the 477-acre tract was described by Clifford Emanuelson, Co-Chairman of the Den Project Committee. He told of its 12-foot high laurel and the gray ghosts of old chestnuts. He then related the events, the people involved and their efforts and stewardship which permanently preserved this area.

Mr. Robert Harper, Sr., who has been directing the work of the Project Committee at the Den then described its history from the time the glaciers left it torn and rugged. He told of its pre-Colonial occupancy (as learned through artifacts) on through to 1942 - there have been only trails through its rugged terrain since then. He related some of the legends of the Den - and had on display some of the many artifacts he'd found.

TNC was then welcomed to Weston by the First Selectman, Mr. Paul Coniglio. In describing this important event in Weston, he pointed out the economic benefits to the taxpayers of preserving this land. He stated that development of this area with some 225 houses would have increased school population and cost of services in Weston "more than could be offset by the additional taxes levied." He continued on to give a

(continued on page 3)

## DDT - A KILLER AT BAY IN CONNECTICUT

Note: This article is reprinted from "The Pequot Conservationist". In response to the resolution attached to this article a hearing on certain uses of DDT in Connecticut will be held on December 1, 1966 (as noted below.) The Editor hopes that our readers will find time to express their opinions in person or by letter on this subject which effects every backyard in Connecticut.

On December 1st, 1966 the fate of the Osprey (fish hawk) as a breeding species in Connecticut, the fate of thousands of other individual birds, the fate of many other animals, and possibly the fate of even some human lives, will be determined by the Connecticut State Board of Pesticide Control. Thursday morning, December 1st, at 10:00 AM the Board will hear testimony on the resolution (appendixed to this article) presented by the Pequot-sepos Wildlife Sanctuary requesting the banning of the biocide DDT in Connecticut for ground application by private applicators and by state agencies. This highly dangerous chemical poison - DDT - has already wisely been banned for aerial application in Connecticut by the Board of Pesticide Control.

One of the problems with chemical pesticides, as conservationists know, is that they do not stay where they are applied but travel by wind, by water and in animal food chains. In the case of DDT (a chlorinated hydrocarbon) the poison remains <a href="Lethal">Lethal</a> for long periods (sometimes years) in the environment. DDT is already present in the mud at the bottom of lakes, in the

(continued on page 2)

# DDT . . . IN CONNECTICUT (continued)

soil of the forest and in the body tissue of animals including man. Thus DDT sprayed in a town upstream on the Connecticut River can pollute the body of a fish living in the mouth of the Connecticut River. The tissue of the fish's body when eaten by the Osprey (fish hawk) in turn pollutes the hawk's body and, when a lethal level is reached will kill the Osprey. More often, however, the less dramatic, but much more insidious, result is sterilization. There is no more effective way to eradicate a species!

Animals at the top of food chains - such as the Osprey and Man - are highly vulnerable to toxic agents such as DDT in the environment because these agents are concentrated as they travel through the food chain.

In 1954 there were 150 Osprey nests in the area by the mouth of the Gonnecticut River; in 1960 - 71; in 1963 - 24; in 1964 - 15; a yearly decline of more that 30%. "Projecting this decline we should see our last nest on the Gonnecticut in 1970-71," stated Roger Tory Peterson, April 22, 1964.

Leading conservation organizations, such as the National Audubom Society, have expressed concern over DDT wildlife kills since 1946. President Kennedy's Presidential Scientific Advisory Committee in 1963 recommended severe restrictions on DDT. Now the Department of the Interior, the U.S. Forest Service (in the Department of Agriculture) and an increasing number of states have moved to restrict the use of the biocide DDT.

The time for action in Connecticut is NOW! The opportunity for you to help in the preservation of our natural heritage is at hand! The hearing on the banning of DDT is a <u>Public Hearing</u> - the Osprey, Connecticut's Natural Heritage and the Connecticut environment belong to all of us. Each of us can help by attending this hearing. If anyone cannot attend he or she can write and express their opinion to the State Board of

Pesticide Control. We must stand and be counted.

The Hearing - December 1st, 10:00 AM will be in the Judiciary Hearing Room in the State Capitol at Hartford. Hartford is less than two hours drive from the farthest point in Connecticut.

Letters - should be addressed to Mr. Brainerd T. Peck, Consultant, Connecticut Board of Pesticide Control, State Office Building, Hartford, Connecticut 06115.

RESOLUTION REQUESTING THE BANNING OF THE CHEMICAL PESTIGIDE DDT FOR COMMERCIAL GROUND APPLICATION AND FOR GROUND APPLICATION BY STATE AGENCIES - as passed by the Pequot-sepos Wildlife Sanctuary, Inc. of Mystic, Connecticut on May 7, 1966.

WHEREAS, DDT is a proven highly toxic, persistent food-chain poison dangerous to wildlife and perhaps human life, and WHEREAS, other less persistent and less dangerous pesticides are available as substitutes for DDT, and

WHEREAS, banning the use of DDT for commercial ground application and for ground application by state agencies will be in keeping with the recommendations of the U.S. President's Science Advisory Committee Report of 1963, and

WHEREAS, positive proof exists that DDT and its metabolites accumulate in soil and water and in the bodies of members of animal food chains including man, and WHEREAS, positive proof of the build-up of DDT compounds and their metabolites in food chains of the animal pyramid exists in the documented case of Clear Lake, California where DDD (usually considered milder than DDT) applied in several treatments in very dilute quantites (one part insecticide to 50 million parts of water) over an eight year period kille of 1,000 pairs of Western Grebes after the DDD had been concentrated 265 times by water plankton, 500 times in small fishes thateatehtheaplankton, and 80,000 times in the grebes that ate the fishes; especially notable is the fact that a die-off of grebes occurred of DDD poisoning five

(coninued on page 3)

PSWS RESOLUTION . . . DDT (continued)

years after the last application of DDD and long after a time when this pesticide could be detected in the water or mud of the lake, and

WHEREAS, more than adequate proof is available that DDT and its metabolites are the primary causitive agents in the destruction of Connecticut's osprey population by its action of sterilizing the osprey eggs, and WHEREAS, the probable extinction of the osprey as a nesting species on the Connecticut River has been predicted by 1970 by one of our nation's leading ornithologists, and

WHEREAS, the osprey is a magnificent and valuable part of the Connecticut Wildlife Heritage, and

WHEREAS, if there is still doubt in any minds regarding DDT and its metabolites as the primary causitive agents in the disastrous decline of the osprey population, we recommend that DDT be banned for custom ground application and for ground application by state agencies at this time until there is proof that DDT and its metabolites are no longer causing wildlife kills and do not threaten the extinction of the osprey in Connecticut,

NOW THEREFORE, BE IT RESOLVED that the PEQUOT-SEPOS WILDLIFE SANCTUARY advocates and recommends that the Connecticut State Board of Pesticide Control ban the chemical pesticide DDT for ground application by commercial applicators and by state agencies.

DEDICATION . . . DEVIL'S DEN (continued)

pledge of assistance for the protection of this Memorial ... to keep it a wildlife refuge and preserve.

Mr. Richard Pough, a Governor of TNC and head of the Open Space Action Committee, then described the needs for preservation and some of the tools which can be used for preserving land - including those of The Nature Conservancy. He stressed that concerned citizens must "act ahead of a threat." He urged conservation oriented citizens in each town to join forces and to determine what areas in their community should be preserved long before the owner has a specific proposal for development. At no times in history, Mr. Pough said, has there been a greater need to control the shaping and building of our civilization on this continent. No generation has had a more significant job than that of ours today. Land use patterns are now being established that coming generations will have to live with. Each community, he stressed, needs 25-35% remaining in open space at a very minimum for good quality living.

Dedication of the Lucius Pond Ordway Preserve was made by Mr. Alexander B. Adams, Chairman of The Nature Conservancy Board of Governors. He described how dedication had truly already taken place be nature - by the trees, plants, animals and birds. Mr. Adams told of plans to use Devil's Den for research of the environment (especially man's role in the complex structure of all life). He then indicated that perhaps the best dedication would be for the formal ceremonies to adjourn and for all those in attendance to partake of a dedication walk through Devil's Den.

# OAK LEAF AWARD

It is with great pride that the Connecticut Chapter notes two of its members among those receiving the Oak Leaf Award at The Nature Conservancy National Annual Meeting. Given to people who have made outstanding voluntary efforts for conservation, awards this year went to Mrs. Anthony Anable and to Miss Katherine Ordway. Congratulations to your both!

#### REPORTS FROM THE ANNUAL MEETING

Election of officers at the Annual Meeting on October 22, 1966 at the Weston Town Hall now gives the Connecticut Chapter the following officers and Board of Directors:

#### Officers:

Mrs. Agnew A. Talcott, Chairman Mr. Richard M. Bowers, Treasurer Mr. Robert F. Kunz, Vice Chairman Mr. Thomas Gaines, Recording Secretary The Nominating Committee has recommended the addition of the position of Corresponding Secretary and Mrs. T. S. Thompson has been elected to fill this office.

Board of Directors:

Class of 1964-67 Mr. Henry Hicock; Mr. Gordon Loery
Class of 1965-868 Mr. Alexander Adams; Mrs. Henry Beers
Class of 1966-69 Mr. Raymond Benedict; Dr. Arthur Dayton
Class of Past Chairmen Dr. Richard H. Goodwin; Mr. Richard M. Bowers;
Mrs. John M. Hamilton

The Treasurer's Annual Report was broken into two parts as follows:

Fiscal Year: 7/1/65 to 6/30/66	Interim Period: 7/1/66 t	o Annual Meeting
Cash Balance 7/1/65 \$2,793.31	Cash Balance 7/1/66	\$1,287.57
Receipts 1,322.38	Receipts	274.25
Disbursements 2,828.12	Disbursements	877.91
Cash Balance 6/30/66 \$1,287.57	Cash Balance 10/22/66	\$ 683.91

Projects Report: (Digested from a report given at the Annual Meeting by Mrs. John M. Hamilton, Projects Chairman.)

The total acreage preserved by the Connecticut Chapter of The Nature Conservancy has more than doubled this year with three major transactions responsible for the growth:

1) Lucius Pond Ordway Preserve (Devil's Den), 477 acres, an entire watershed; 2) final consummation of the Anstett Tract, enlarging the Frederic C. Walcott Preserve (Beckley Bog) by 250 acres to a total of 508 acres plus 75 acres under wildland easement; and
3) Mianus Valley tract of 130 acres, title to which is being held by The Nature Conservancy until the State of Connecticut can make it part of their Open Space Program. Byram River Gorge also has another 9.5 acres, now totalling 85 acres preserved.

Other activities include increasing use of Taine Mountain Preserve (174 acres) by hikers and horseback riders; new hopes and activity in Bantam River Preserve; a devastating fish kill at Folly Brook Natural Area caused by raw sewage; an Ecological Leaflet published by The Natural Conservancy on the vegetation and wildlife at Burnham Brook Preserve, and concern for a possible dam upstream from this preserve; a study at the Gallup Marsh on the salinity tolerances and habitation characteristics of the ribbed mussel (See article on page 8).

Resolutions: Two resolutions were presented at the Annual Meeting and passed unanimously:

#### 1) Resolution on Nature Preserves Bill:

"The Connecticut Chapter of The Nature Conservancy hereby goes on record as favoring the passage by the 1967 Connecticut General Assembly of a statute to create and operate a State System of Nature Preserves.

The Connecticut Chapter of The Nature Conservancy does and will continue work hard to acquire and protect nature preserves whether or not those areas are technically owned by The Nature Conservancy.

We believe that a State System of Nature Preserves will complement our nature preserves and assist to achieve the goal of having living museums. A State System of Nature Preserves should not be competitively harmful in any way.

We invite the State to be more active al (sentinued on page of Armental

## CHALLENGES OF OUR TIMES

Much needs to be said about the need to examine the role of man - his position on this Earth and his use and abuse of the natural resources of this planet. Persons who seek, as does Dr. Richard H. Goodwin, former Chairman of our Chapter, to combine the knowledge of the academic world with the need for action in the practical world are too few and far between. The following extracts are from two recent addresses by Dr. Goodwin who has just recently completed a second two-year period as the Conservancy's national president.

An address before the National Conference of The Nature Conservancy on September 10, 1966.

... The late Adlai Stevenson said,
"We travel together, passengers on a
little space ship, dependent on its
vulnerable reserves of air and soil;
all committed for our safety to its
security and peace; preserved from
annihilation only by the care, the
work and, I will say, the love we give
our fragile craft."

The 10,000 members of TNC are among those far-sighted citizens who really care about the quality of life on the space ship and about the passengers -both plant and animal -- that we permit to accompany us on our journey. As a biologist I see humanity as only one, albeit an aggressive and dominant one, among a vast assemblage of organisms, which represents the culmination of a complex evolutionary process that has been going on for hundreds of millions of years. If we examine the record we find that only a small fraction of the species that have evolved are living today; that the probability of a given species becoming extinct is higher than of its survival. Why is it then that man, the one creature above all others that has the capacity to control his own destiny, deludes himself into thinking that he lives beyond the laws of nature and that he can with impunity destroy the very base of his subsistence?

I can still recall the shock I received in 1952 at the Mid-Century Conference on Resources for the Future upon discovering that the long-range planning of the most responsible people in our country was focussed on a time span of 25 years. We are already over half way

An address before the American Institute of Biological Sciences at the University of Maryland on August 17,

... When we use our natural resources we are using, polluting and often destroying, those items in our environment that have direct bearing on the satisfaction of appetites, the health of the individual and the perpetuation of the species. It is within our field of professional competence to evaluate the impact of thoughless exploitation upon the integrity of our environment.

No biologist survives the undergraduate curriculum without an introduction to the evolutionary perspective of continuous change over vast periods of time. The complex gene pool, of which we are an important part, is the product of a process that has been proceeding for hundreds of millions of years. ...

I would like to emphasize the distinction between science and technology. Technology is the application of scientific discoveries. Where science is sociologically neutral, technology is seience put to work either for good or evil. It is here that we so often run into trouble with respect to the utilization of our resources. Technological applications often become confused by the general public with science and, hence, take on the authority of science. Thus harmful technological applications, promoted by vested interests through mass media, are being accepted by the public as inevitable.

'Whether or not a particular technology has harmful potentialities ought not to be decided unilaterally by those

# TNC ADDRESS ... (continued)

toward their 1977 goal, and the per capita resource base and the quality of the environment have substantially deteriorated during these last 14 years.

We of TNC at least direct our efforts in one theatre of action toward a longer range goal -- the preservation of natural areas for the benefit not only of ourselves but also of future generations. Most of us are aware of the fact that this is only a holding action in the face of the population explosion and most of us are variously engaged in efforts to preserve the quality of our environment; but whatever we are able to accomplish through TNC is likely to give us enduring satisfaction. ...

I would like to make the point that gifts toward operating expenses represent the most unselfish and at the same time the most imaginative type of philanthropy that the Conservancy receives. Ten years ago some of us dreamed of an organization that could operate really effectively in every state. At that time TNC had accomplished 15 projects in seven different states. Today these figures have grown to about 200 projects in 32 states, and our dreams are much closer to realization.

I would like to close these remarks on a note of confidence. We have never had a more effective and devoted staff than we have at the present time. We have a wonderful group of men and women as officers and governors on our National Board. We have an ever increasing number of effective workers in the regional vinyards. We have enlisted the talents of an able conservationist to serve as our new president. Let us all pledge to him our very best efforts to make the Conservancy meet the challenge of our times.

# AIBS ADDRESS ... (continued)

who wish to use it. Destructive technologies are often highly profitable for those promoting them. They have a vested interest in the technology; it may give them money, reputation, power.... Moreover, they are nearly always practical men more knowledgeable about <u>efficiency</u> in using a technology than about the <u>legal and scientific implications of such use</u>," stated Vice Admiral H. G. Rickover last Fall.

As our population expands, the impact of man upon the surface of the earth becomes increasingly severe. We now have sufficient information to identify and define some of the adverse consequences that will inevitably develop if we take certain actions. ... Somehow we must persuade the public to adopt a modified and sounder set of values, that will put man in relation to the entire ecosystem. ...

The establishment of natural areas is clearly only a desperate holding action in the face of the population explosion. My realization of the gravity of this problem has been growing, as I am sure yours has, with the passing years. ...

What can one do about an excessive human facundity beyond judicious personal restraint? Our rear bumper bears a sticker that says, "Trouble parking? Support Planned Parenthood!" I have a deep respect for William Vogt, who abandoned a career in ornithology to devote himself to the birth control movement. One of the encouraging signs during the past decadeehas been the amazing change in the public attitude toward birth control. A few years ago contraception was a subject unsuitable for discussion. it is being dealtowith in all our mass media. Somehow, we must transform knowledge into concern and concern into action.

Thomas Merton has recently written the following description of urban life: "Cities leave me with a sense of place-lessness and exile -- the ceaseless motion of hot traffic, tired and angry people in a complex swirl of frustration.

At the risk of being branded unAmerican I am going to suggest the need
for a basic reappraisal of our values.
Do we really want an ever-expaning economy that is always predicated upon more
people, greater dependence upon material
things, built-in obsolescence, and more
mapid per capitaumacooffproverand page 7)
sources? To reverse this trend and to
l reak out of this economic cycle is a

# CHALLENGES ... (continued)

rapid per capita use of power and resources? To reverse this trend and to break out of this economic cycle is a problem of such proportions as to stagger the imagination. And yet -- before it is too late -- should it not be attempted?

"What shall we do, " says Dr. Carl W. Borgmann, of the Ford Foundation, 'with the inevitable wastes of our energyproducing processes, with our ash heaps, with the smog of Los Angeles, with the unnatural warming of our rivers? Smogs are the result of incomplete combustion in our household furnaces, in our industries, and from our automobiles and buses. But even if we could afford devices which allowed for our fuels to be completely burned to water and carbon dioxide, another change in our environment is likely. Carbon dioxide, as it becomes a greater proportion of the atmosphere, behaves somewhat like the glass of a greenhouse. It traps heat from the sun, and climatic change results -- not overnight, but slowly and surely. This process appears to be already under way, in fact.

"Of course we have heard that nuclear (fission) energy is nearly ready to compete in the production of power. But, these new hopes bring real problems, too. The preparation of the fuel and the handling and storage of the radioactive waste ash are not without dangers to man and his future. Further, because these plants are so potent, they will produce unprecedented amounts of heat as a by-product. How will we dispose of this without upsetting the environment in our rivers and in areas of the sea?"

It takes vision to project the implications of unprecedented human activities upon the ecosystem. It takes courage to become the proponent of social change — to stand and be counted in dissent. He who does so, exposes himself to the hostility of those whose status is threatened by the change and may even place his employment in jeopardy.

To those who possess the talents to become prophets I would say that it is a sin to hide them under a bushel. The rest of us, however, can surely give these leaders sorely needed support by endorsing their efforts. ... We must press for changes of attitude and social reforms by participation in suitable action groups.

# ANNUAL MEETING ... RESOLUTIONS (continued)

We invite the State to be more active along with our non-governmental efforts to have more nature preserves created in Connecticut."

Ed. Note: The Nature Preserves Bill was presented in the 1965 General Assembly and sponsored by many of the Connecticut Chapter members. While passage was not obtained, much additional spade work has been done since and it is hoped that the Nature Preserves Bill will be successfully enacted in 1967.

# 2) Resolution on Banning Custom Ground Application of DDT

"The Connecticut Chapter of The Nature Conservancy hereby goes on record as favoring the banning of custom ground application of DDT by the Conn. Board of Pesticide Control.

The Conn. Chapter of TNC knows of no reasons which justify increasing the exposure of animal life including warm blooded animals (such as human beings) to the health hazards already established and logically likely which are caused by a residual hydro-carbon such as DDT.

Therefore, we urge the Conn. Board of Pesticide Control to ban the custom ground application of DDT as soon as possible in keeping with the recommendations of the U. S. Presidential Scientific Advisory Committee."

Ed. Note: A public hearing by the Conn. Board of Pesticide Control considering the banning of custom ground application of DDT will be held December 1st in Hartford. (See reprint article on page 1.) It is hoped that individual members of the Chapter will express themselves in person or by letter to this Board.

# CHALLENGES ... (continued)

I believe the time has come when biologists must actively enlist the aid of those sophisticated in the techniques of social and political action to promote reforms in the long-range and public interest of mankind. To achieve these objectives may require the creation of new institutions. Whatever the organizational structure that may be invoked, we must always remember the words of Aldous Huxley: "Everything that gets done within a society is done by individuals."

#### MUSSELS ARE STUDIED AT GALLUP MARSH

The Gallup Marsh in Old Mystic, upon which The Nature Conservancy has a conservation easement, is the site of a study being conducted on the ecology of the ribbed mussel (Modiolus demissus Dillwyn), a salt-marsh mussel found the length of the Mystic estuary.

This study is being conducted by Robert H. Cerwonka, Associate Professor of Biology, State University College at Potsdam, New York. He is conducting his research activity at the University of Connecticut Marine Research Laboratory in Noank.

The Gallup Marsh, at the head of the Mystic estuary has been paired with Sixpenny Island near the mouth of the Mystic estuary, and reciprocal transplants of mussels have been made between these two locations. These transplants will remain for a full year. They will be sampled and measured at intervals during this year.

The study includes: distribution of these bi-valves on the marsh; analysis of their filtering rates; and evaluation of the ecological factors to which they are exposed. Two aspects of the biology of Modiolus which Mr. Cerwonka hopes to resolve by this research work are: 1) Are these organisms exposed to significantly lower salinities than those at the mouth of the river, and, if so, how does this affect filtering rates; and 2) What intertidal level do the mussels inhabit, and how is growth affected.

The Gallup Marsh Project Committee is most pleased to have this study occurring and hopes that the study will lead to better understanding of the value of salt water marshes.

Research of this type is one of the prime functions of Natural Areas. We in The Nature Conservancy approve and encourage such scientific studies on our areas. One excellent reason for scientific research on a dedicated Nature Preserve, such as the Gallup Marsh, is that five, ten or twenty years from now

repeat experiments can be conducted on the same site with a minimum of environmental changed caused by human activity.

THE NATURE CONSERVANCY

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The Editor invites any comments concerning, or articles for the Chapter Newsletter.

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